

Listing of Claims:

This Listing of Claims replaces all the prior listings of claims.

1. (CURRENTLY AMENDED) A method for culturing primary hepatocytes comprising plating primary hepatocytes in the presence of an anti-oxidant(s) and a second agent, wherein said second agent is (1) a functional inhibitor of an enzyme that generates reactive oxygen and reactive nitrogen species, (2) an agent that directly inhibits the reactive oxygen or the reactive nitrogen species, or (3) an agent that increases intracellular glutathione and culturing said primary hepatocytes for at least five days, wherein said primary hepatocytes maintain function to metabolize xenobiotics or cytochrome P450 gene expression, or wherein said primary hepatocytes display fenestration, bile canniculi or binucleation for at least five days.
2. (ORIGINAL) The method of claim 1, wherein the anti-oxidant is tocopherol succinate or a scavenger of the hydroxyl radical.
3. (ORIGINAL) The method of claim 2, wherein the hydroxyl radical scavenger is mannitol.
4. (ORIGINAL) The method of claim 1, wherein the second agent is a glutathione precursor or an inhibitor of nitric oxide.
5. (CURRENTLY AMENDED) The method of claim 4, wherein the glutathione precursor is ~~2-~~2-oxo-thiazolidine 2-oxothiazolidine-4-carboxylate.

6. (CURRENTLY AMENDED) The method of claim 4, wherein the nitric oxide inhibitor is N^G-methylarginine, wherein "G" is a guanidine moiety in H₂N^G-C-

$$\begin{array}{c} \parallel \\ \text{NH}_2 \end{array}$$

NHCH₂CH₂CH₂CH(NH₂)CO₂H.
7. (CURRENTLY AMENDED) The method of claim 1, wherein the anti-oxidant and second agent is ~~2-oxo-thiazolidine~~ 2-oxothiazolidine-4-carboxylate and tocopherol succinate.
8. (CURRENTLY AMENDED) The method of claim 1, wherein the anti-oxidant and second agent is N^G-methylarginine, wherein "G" is a guanidine moiety in H₂N^G-C-

$$\begin{array}{c} \parallel \\ \text{NH}_2 \end{array}$$

NHCH₂CH₂CH₂CH(NH₂)CO₂H and mannitol.